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CURRENT LIMIT FOR AN ELECTRIC MACHINE

ABSTRACT OF THE DISCLOSURE

A method and apparatus for limiting current and voltage in a PM electric machine comprising: receiving a command indicative of a desired position control; obtaining a velocity value indicative of the rotational velocity of the electric machine; and computing a first voltage threshold for the electric machine based on a selected operating condition. If the voltage command exceeds the first voltage threshold, the method also includes establishing a modified voltage command as substantially equivalent to the first voltage threshold, otherwise establishing a modified voltage command as substantially equivalent to the voltage command.